Health by Numbers

Rhode Island Department of Health
David R. Gifford, MD, MPH, Director of Health

Office of Health Statistics
Turning numbers into knowledge
www.health.ri.gov

Vol. 7, No. 9 September 2005 Edited by Jay S. Buechner, PhD

Rhode Island Child Death Review Key Findings: 2000-2002 Deaths

**Elizabeth A. Laposata, MD,
Jennifer Swartz, DO,
Wendy Verhoek-Oftedahl, PhD,
Andrea Alvarez, BA,
Edward F. Donnelly, RN, MPH,
and Jay S. Buechner, PhD**

Efforts to prevent child deaths have led to the establishment of child death review programs at the state and local level across the country. "Child Death Review (CDR) is … a collaborative process that brings people together … from multiple disciplines, to share and discuss comprehensive information on the circumstances leading to the death of a child and the response to that death."[1]

The Rhode Island Child Death and Injury Review Team was formally established in 1998 by the Rhode Island Department of Children, Youth and Families (DCYF). In spring 2004 the review of child fatalities occurring from January 1, 2000, onward became the responsibility of the Rhode Island Child Death Review Team (RICDRT), coordinated by the state's Chief Medical Examiner. Members include representatives from DCYF; the Department of Human Services; law enforcement; the RI Attorney General's Office; injury prevention programs; pediatricians representing emergency services, child protection, and primary care; and a Brown Medical School injury epidemiologist.

This report summarizes the initial findings of the RICDRT based on reviews of child deaths occurring during 2000-2002.

Methods. The RICDRT reviewed all deaths of children (birth – 17 years of age) due to accidents, suicide, homicide, and Sudden Infant Death Syndrome (SIDS) and all deaths with manner unclassified (i.e., undetermined as to intent) that occurred in Rhode Island during 2000-2002. The reviewed deaths were identified through the Medical Examiner's (ME) daily log. Deaths of Rhode Island residents that occurred out of state were not included, as information on these deaths is not available for review.

The RICDRT reviewed information abstracted from source documents contained in the ME record including ME autopsy and toxicology reports, police reports, pre-terminal medical records, child protection records, primary care records and other documents as appropriate. The RICDRT assessed the potential preventability of each death by action at the community and individual level, e.g., education and policy changes. The review process and method of assessment of preventability are described in detail in the Public Health Briefing in this issue of *Medicine & Health / Rhode Island*.

Results. During 2000-2002 there were 108 child deaths due to non-natural causes and SIDS. Of these deaths, the Medical Examiner ruled 55 to be accidents, 17 to be homicides, 8 to be suicides, 12 to be SIDS, and 16 to be "unclassified as to intent" after a thorough medico-legal investigation. (Figure

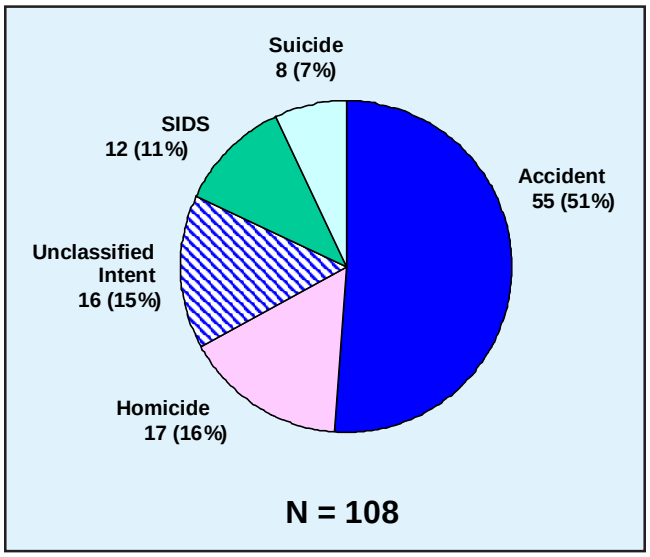

Figure 1. *Non-natural and SIDS Deaths Occurring in Rhode Island, by Manner of Death, Ages 0 – 17, 2000 – 2002.*

1) Of the 108 deaths, 36 occurred in 2000, 31 in 2001 and 41 in 2002.

The preponderance of deaths involved children under age 1 (30.6%) and children aged 15 to 17 years (39.8%) (Figure 2) The majority (65, or 60.2%) were non-Hispanic White race/ethnicity, 16 (14.8%) were Hispanic, 16 (14.8%) were non-Hispanic Black, 8 (7.4%) were Asian, 2 (1.9%) were American Indian, and 1 (0.9%) was of undetermined race/ethnicity.

The greatest numbers of child deaths during the three-year period were those involving motor vehicles (MV) (31 deaths) and deaths of infants that occurred while co-sleeping or sleeping on structures not designed for infant use (21

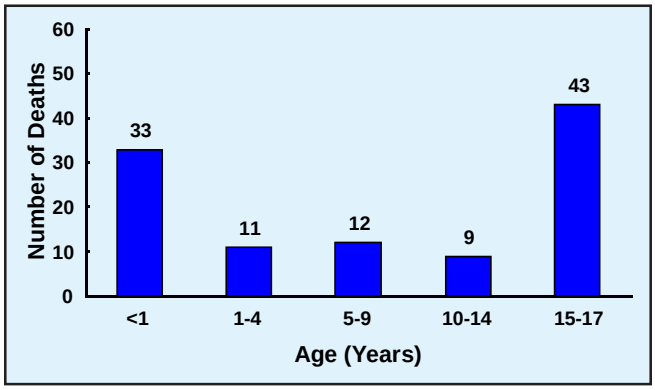

Figure 2. *Non-natural and SIDS Deaths Occurring in Rhode Island, by Age at Death, Ages 0 – 17, 2000 – 2002.*

deaths). Of the 31 MV deaths, 23 (74.2%) occurred among children who were occupants of or ejected from cars or SUVs. Of these, 16 (69.6%) involved children who were unrestrained. All unrestrained children were ages 13-17.

The 21 deaths of infants that were co-sleeping or sleeping on structures not designed for infant use (16 deaths and 5 deaths, respectively) accounted for 63.6% of the 33 infant deaths in 2000-2002 that were due to non-natural causes or SIDS. Co-sleeping refers to children sleeping with others. Structures not designed for infant use include couches, futons, air mattresses, waterbeds and other beds designed for adult use. All these deaths occurred among infants ages 6 months or younger; the majority (13) occurred among those ages 1 or 2 months.

The RICDRT initial assessment of preventability indicated that as many as 80% of the 108 reviewed deaths may be potentially preventable by action at the community level and 78% may be potentially preventable by action by individuals. Preventability varied by manner of death, from 50% of SIDS deaths to 100% of homicides that were not related to child abuse. (Figure 3)

Discussion. The RICDRT's initial review of 108 child deaths due to non-natural causes and SIDS identified MV fatalities and deaths of infants associated with co-sleeping or sleeping on structures not designed for infant use as top priority areas for prevention. The RICDRT will conduct in-depth, focused reviews of these deaths in order to inform prevention efforts.

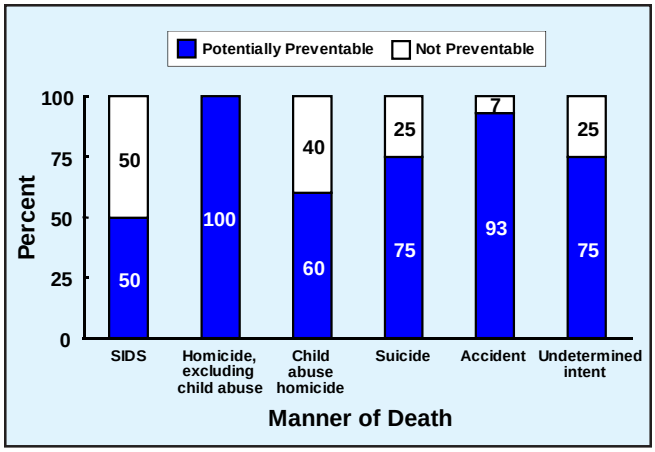

Figure 3. *Non-natural and SIDS Deaths Occurring in Rhode Island, by Manner of Death and by Potential Preventability as Determined by Initial RICDRT Review, Ages 0 – 17, 2000 – 2002.*

The preponderance of teen fatalities associated with motor vehicles is a particular area of concern. Initial areas of focus identified by the RICDRT are the role of driver inexperience, failure to use seat belts, underage alcohol use, excessive speed, and the presence of multiple occupants, notably other teens, in fatal motor vehicle crashes. The in-depth reviews of these deaths will inform prevention efforts such as those of the Department of Health's SafeRI Violence and Injury Prevention Program.

The RICDRT will also conduct in-depth reviews of infant deaths that occurred while co-sleeping or sleeping on structures not designed for infant use. The results will inform the important prevention activities currently underway by the Hasbro Children's Hospital Child Protection Program and will be shared with child death review teams in other states as well as with the National MCH Child Death Review Program.

The RICDRT is continuing to review current child deaths to identify risk factors, trends, and areas for prevention. Through effective collaboration with government programs and community organizations that develop and deliver prevention interventions and implement policy changes, the team will pursue its goal to keep Rhode Island children alive and healthy.

Elizabeth A. Laposata, MD, is former Chief Medical Examiner and Clinical Associate Professor of Pathology and Laboratory Medicine, Brown Medical School.

Jennifer Swartz, DO, is Interim Chief Medical Examiner and Clinical Assistant Professor of Pathology and Laboratory Medicine, Brown Medical School.

Wendy Verhoek-Oftedahl, PhD, is Assistant Professor of Community Health (Research), Brown Medical School.

Andrea Alvarez, BA, is Senior Data Manager/Assistant Epidemiologist, Department of Community Health, Brown Medical School.

Edward F. Donnelly, RN, MPH, is Senior Public Health Epidemiologist, Office of Health Statistics, and Clinical Teaching Associate, Department of Community Health, Brown Medical School.

Jay S. Buechner, PhD, is Chief, Office of Health Statistics, and Clinical Assistant Professor of Community Health, Brown Medical School.

References

1. The National MCH Center for Child Death Review, Program Manual for Child Death Review. www.childdeathreview.org.

Originally published in the September 2005 issue of Medicine & Health / Rhode Island

HEALTH

Rhode Island Department of Health
Office of Health Statistics
3 Capitol Hill
Providence, RI 02908

Change service requested
401 222-2550